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- 5) replenishing the drum drier with the oil continuously supplied upon depletion of the oil film by an amount of depletion.

REMARKS

Applicant respectfully requests reconsideration of the position set forth in the outstanding Office Action mailed August 8, 2002 and the Advisory Action mailed in light of the following remarks. Claims 1-6 are pending in the application. Per the Advisory Action mailed December 3, 2002, claims 1-6 stand as rejected under 35 U.S.C. §102, or in the alternative, under 35 U.S.C. §103.

Attached hereto is a marked-up version of the changes made to the claim by the current amendment. The attached page is captioned "Version with markings to show changes made".

Rejections under 35 U.S.C. §102/103

Claims 1-6 stand as rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over U.S. Patent 3,014,832 (Donnelly).

The Examiner asserts the following: (1) Donnelly discloses a paper making process of fabricating a tissue, wherein the process contains a Yankee dryer, and that the drier surface is kept clean by the release of an emulsified oil agent; (2) Donnelly discloses that the emulsified oil agent is sprayed into the pressure nip formed between the drying cylinder and the associated press roll; (3) it is anticipated, or alternatively, obvious that spraying of the emulsified oil agent into the nip sprays the agent onto the surface of the Yankee drier as it sprays the emulsified oil agent onto the web; and (4) it is inherent that the applied oil creates a thin oil film on the drier cylinder and the continuously applied oil fills any microscopic recesses on the surface of the drum.

Applicant responds that if release agent were sprayed onto the surface of the Yankee drier as asserted by the Examiner, if the agent contains oil, it would cause contamination, oil stains, and the like of the paper.

On the contrary, the present invention utilizes a surface treatment prepared by emulsifying oil by the agency of a surfactant that is continuously supplied from a spray nozzle directly to the surface of the drum drier, as stated in amended claims 1 and 4. Therefore, since the oil is not directly applied to the paper, the paper used in conjunction with the present invention does not become contaminated. Moreover, since a very small amount of oil is used for application to the drum drier surface, namely 0.3 to 500 mg/m² per minute, if any oil applied to a surface of the drum drier were secondarily transferred to the paper strip, its slight amount would not contaminate the paper strip.

The Applicant further responds that according to the method taught by Donnelly, as shown in figure 2, the air current is disturbed around the portion close to the pressure nip, and thus, as a result Donnelly cannot apply the release agent directly to and only to the drying cylinder, as is required in Applicant's amended claims 1 and 4.

Thus, Donnelly teaches a significantly different process and teaches away from the present invention. Therefore, one skilled in the art would not find any teaching or suggestion in Donnelly that would result in the present invention.

For all of the reasons noted above, Applicant believes that the cited reference neither anticipates the Applicant's claimed invention under 35 U.S.C. §102(b) nor renders the present invention obvious under 35 U.S.C. §103(a). It is respectfully requested that these rejections be withdrawn.

The fee for a three-month extension of the period for reply is due in accordance with this response, however should a fee be due that is unaccounted for, please charge such fee to Deposit Account No. 501447 (Potter Anderson and Corroon). Furthermore, if any extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefore are hereby authorized to be charged to our Deposit Account No. 501447.

Applicant believes the stated grounds of rejection have been properly traversed, accommodated, or rendered moot and that a complete response has been made to the Office Action mailed August 8, 2002 and the Advisory Action

mailed December 3, 2002. Applicant believes that the application stands in condition for allowance with withdrawal of all grounds of rejection. A Notice of Allowance is respectfully solicited. If the Examiner has questions regarding the application or the contents of this response, the Examiner is invited to contact the undersigned at the number provided below.

Respectfully submitted,

By 

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In showing the changes, the material to be deleted is in brackets and the material to be inserted is underlined.

IN THE CLAIMS:

Please AMEND the following claims:

Claim 1. (Thrice amended) A method for preventing contamination of a surface of a drum drier used in a paper machine comprising the step of continuously supplying a surface treatment agent from a spray nozzle at a spray rate of 0.3 to 500 mg/m² per min directly to only the surface of the drum drier in rotation, facing a paper strip, while the paper strip is fed by the paper machine, wherein the surface treatment agent is prepared by emulsifying oil by the agency of a surfactant[.], and wherein the paper strip is not stained by the release agent.

Claim 4 (Thrice amended) A method of preventing contamination of a surface of a drum drier used in a paper machine, said method comprising the following steps 1) to 5):

- 1) supplying oil from a spray nozzle directly to only the surface of the drum drier in rotation, facing a paper strip, while the paper strip is fed by the paper machine;
- 2) [filing] filling up recesses in microscopic asperities on the surface of the drum drier with the continuing supply of an oil;
- 3) forming a thin oil film on the surface of the drum drier with the recesses of the microscopic asperities thereof already filled up by the continuing supply of the oil;
- 4) transferring the oil to the paper strip by keeping the drum drier and the paper strip pressed into contact with each other, depleting the oil film, wherein the paper strip is not stained by the oil; and

- 5) replenishing the drum drier with the oil continuously supplied upon depletion of the oil film by an amount of depletion.